

Place Value - Making the Largest Number

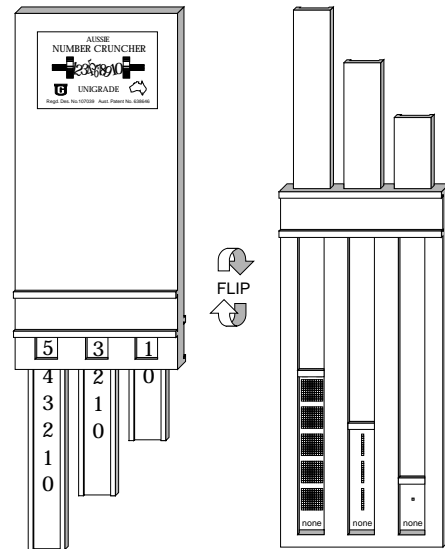
When comparing concrete with abstract your students will have the visual key to understanding place value.

‘What is the largest number you can make using the digits 3, 1 and 5?’

Students use the digit side of their Number Cruncher. They then flip to the M.A.B. side and compare their answers with other students.

Note

When showing the largest number on the M.A.B. side the stairs go up to the left. When showing the smallest number the stairs go up to the right.



Activity 1

Students are given three single digits e.g. 3, 9 and 5. They write down all possible combinations to make three digit numbers.

Students display each three digit number on the digit side of their Number Crunchers then flip them and compare the total number of small squares shown. They decide which combination makes the largest number of small squares.

Activity 2

The same as above only using two digit numbers.

Game

Students work in groups of up to five. Each student has a Number Cruncher and each group has a ten-sided die with the digits 0 to 9.

The object is for students to make the largest number using the three digits when the die is rolled three times. After each roll of the die students display the digit in the hundreds, tens or ones on the digit side of their Number Crunchers. Once a number is displayed it cannot be changed. After three rolls of the die students flip their Number Crunchers to the M.A.B. side and compare the number of squares shown.

Students with the highest number score a point. The first to ten points wins the round.

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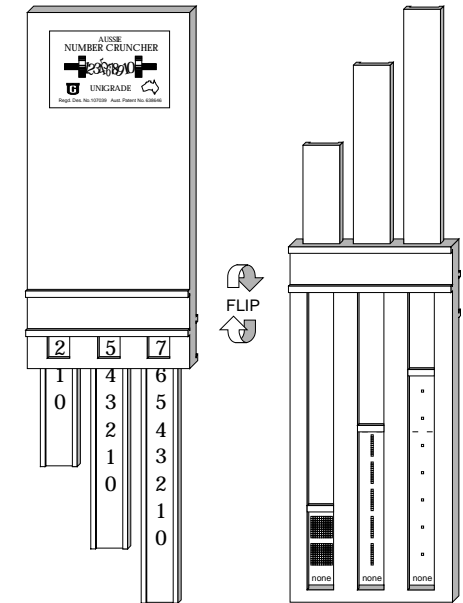
Forming numbers in concrete terms gives your students understanding before moving into the abstract.

‘What is the smallest number you can make using the digits 5, 7 and 2?’

Students use the digit side of their Number Cruncher. They flip to the M.A.B. side and compare their answers with other students.

Note

When showing the smallest number on the M.A.B. side the stairs go up to the right. When showing the largest number the stairs go up to the left.



Activity

Ten students with Number Crunchers are selected to stand in front of the class. They are told to think of a three digit number and display it on the digit side of their Number Cruncher. They then flip their Number Crunchers to the M.A.B. side. The students are then told to get into an ordered line with the smallest number to the right and the largest to the left when facing the back of the classroom. Two other students are selected to check that the ordering is correct. A die is thrown. If an odd number is thrown the student with the largest number sits down; if an even, the student with the smallest. The activity is repeated until only one student is left. Ten new students are selected and the activity is repeated.

Game

Students play in groups of three, four or five. Each student has a Number Cruncher and each group has three ten-sided dice with the digits 0 to 9. Each player takes a turn throwing the dice and making the smallest number they can using the digits thrown. They show the number on the digit side of their Number Cruncher.

When all players have had their turn they flip their Number Crunchers to the M.A.B. side and compare the results. The player with the smallest total wins a point. The first player to ten points wins the round.